

Andrew, Florence

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Speech defects: An analysis of speech disorders  
in the United States...

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BOSTON UNIVERSITY  
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SPEECH DEFECTS: OR, AN ANALYSIS OF  
SPEECH DISORDERS IN THE UNITED STATES  
WITH SPECIAL EMPHASIS ON THE CURRENT  
IDEAS IN THE THERAPEUTIC TREATMENT OF  
STUTTERING.

Submitted by

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(B. S. in Ed., Boston University, 1927)

In partial fulfillment of requirements for  
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I. The Need for Speech Correction Work.A. Introduction--

No one really knows just when speech began but the anthropologists think they have evidence which seems to show that speech probably began at least a million years ago, during the first glacial period when the "Java Man" lived. There have been many theories of language development. One of the earliest was, that a divine being had mysteriously given to man through revelation the power of speech. Another early theory has been named the "bow-wow" theory. It held that speech came from an imitation of animal sounds. A third primitive theory was based upon the idea that speech developed from the need for expression of the emotions which led to exclamations of "ow", "ach", "ugh", and the like. This has been called the "pooh-bah" theory.<sup>1</sup>

However speech began, it has certainly always been purposeful. Primitive man used speech for his physical needs, but as time went on and he began to adjust himself to the group, then man's speech became an expression of his intellect and emotions.

Speech is closely associated with personality; it reveals the desires, wishes, ambitions, aspirations, and ideals of the individual. Definite and concise speech, combined with a pleasing personality, is absolutely necessary today for the man or woman who would be a leader on the stage, in the classroom, on the lecture platform, or in any walk of life where he must talk. Dr. Sara M. Stinchfield of Mount Holyoke College found, after giving speech tests to girls for six consecutive years at

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1. Stinchfield, Sara M., The Psychology of Speech, pp. 20, 21.





the beginning of the Freshman year, that those whose names appeared in the speech correction group were often those who had difficulty in making satisfactory adjustments to college life and to college work. They were rarely on Phi Beta Kappa lists and were seldom prominent in athletics or in social life. Inferiority of intelligence did not cause poor adjustments "for there were just as many girls of good intelligence in the corrective groups as there were in the superior speech groups. In the matter of scholarship, however, we must admit that the corrective group contains a larger number of girls who have failed in the first semester of their Freshman year or at some point during their college careers."<sup>1</sup>

Speech is not only an expression of personality, but it is the means of binding the individual to his fellows. Some one has said, "Speech is the great bridge between man and man and between the individual and the community." We in America are becoming speech-conscious. The wide-spread study of languages, the popular interest in Little Theaters, the devotion to talking pictures, and the tuning in to San Francisco and London are giving us a national feeling for good speech. Speech has become the foundation of our civilization and institutions. How important speech becomes when we think of the tremendous part it has played in such movements as Adult Education, Industrial Democracy, World Peace! Indeed it is true that "all the things that ever get done in this world, good or bad, are done through words."

#### B. A Speech Defect Defined--

If speech is a psychological bridge connecting man and man, and the individual with the community, then where the rela-

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1. Stinchfield, Sara M., Speech Pathology, p. 40.



tion to society is free, "speech is a wide, safe bridge over which words pass steadily, carrying thoughts and emotions." However, if the relationship is disturbed by faulty education or speech handicaps, then "speech becomes an unsafe bridge and in many cases may act like a drawbridge serving as a means not of communication, but of isolation." And this leads us to a definite explanation of just what a speech defect is. Professor Travis of the University of Iowa has given a very clear definition. He says, "A speech or voice defect is an unusually conspicuous deviation in the speech pattern of an individual which is incapable of bringing about an adequate social response and which by the same token constitutes a mal-adjustment to his environment."

### C. Statistical Data--

Many educators who are interested in speech training have begun to learn that speech defects are increasing in the American schools. Slovenly speech, foreign accent, lisping, stuttering, and other speech difficulties abound in both public and parochial schools.

A few of the statistics on speech disorders, available from many different sources, are summarized here:

The White House Conference on Child Health and Protection made its report in 1931. One of the special committees of this conference had secured information about the training of school children, defective in speech. The statistics given by the committee are interesting. "One million school children in America between the ages of five and eighteen are so defective in speech as to require remedial treatment and training. This





number does not include those children who stopped school before reaching eighteen years." From the reports of forty-eight cities in the United States with a population of over ten thousand, it was found by the committee that the median percentage of school children having defective speech was six and nine-tenths. A speech survey of Madison, Wisconsin showed that seven per cent plus were classified as defectives.<sup>1</sup>

Dr. Smiley Blanton says that more than a million people in the United States stutter. More than half this number are children of pre-school or school age. Four-fifths are boys and one-fifth are girls.<sup>2</sup> A study of fifteen hundred incoming Freshmen at a large university showed that fifteen percent had defects of speech. Several school surveys reveal that fifteen per cent of the children in the secondary schools have definite speech defects.<sup>3</sup>

D. Social and Economic Maladjustments Due to Speech Defects--

It is extremely difficult for a person of normal reactions to realize what suffering and misery a child or an adult experiences who has any peculiarity that sets him apart from his fellows. Wendell Johnson, of the University of Iowa, who has stuttered for twenty years says, "When you consider that speech is the capacity an individual has to reproduce his very soul in words and thus to render himself meaningful to others, and when you consider that this capacity involves the entire organism,

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1. White House Conference, Special Education. The Handicapped and the Gifted, p. 353.

2. Blanton, Smiley, "Why Children Stutter", The Parents' Magazine, VI (February, 1931), p. 26.

3. Blanton, Smiley, "Your Child's Speech", The Parents' Magazine, VI (January, 1931), p. 18.

The first part of the report deals with the general situation of the country. It is a very interesting and informative study of the country's history and development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country.

The second part of the report deals with the economic situation of the country. It is a very interesting and informative study of the country's economy and development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country.

The third part of the report deals with the social situation of the country. It is a very interesting and informative study of the country's society and development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country.

The fourth part of the report deals with the political situation of the country. It is a very interesting and informative study of the country's politics and development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country.

you can readily grasp the seriousness of a speech defect. A speech defect is probably one of the outstanding factors in the life of any person suffering from it."<sup>1</sup>

Uncorrected speech disorders in childhood become serious economic and social handicaps in later life because of their bearing on education and the ability to secure employment. A few descriptions from real life will picture tragic maladjustments due to speech defects:

Mr. Benjamin N. Bogue, founder of the Institute for Stammerers in Indianapolis, Indiana says, "I was laughed at for nearly twenty years because I stammered. I found school a burden, college a practical impossibility, and life a misery because of my affliction." Mr. Bogue's detailed story of his efforts to get employment is enough to wring one's heart. He went from office to office, but no one wanted a man who stammered. He finally landed a job as an elevator man at three dollars a week but soon lost it when his employer learned that he could not answer when spoken to. After several attempts in other lines of work, he took a job selling newspapers on trains running over the Grand Trunk Railway. Mr. Bogue's own words make the picture vivid:

"You can imagine what it meant to me to go up and down the aisles of the train, calling papers and every few moments find out that I couldn't say what I started out to say, and then go gasping and grunting down the aisle making all sorts of facial grimaces. How the passengers laughed at me! And how

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1. Johnson, Wendell, "Eighteen Years of Stuttering", Hygeia, VII (September, 1929), p. 907.

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they made fun of me and asked me all sorts of questions just to hear me try to talk. It almost made me wish I could never see a human being again, so keen was the suffering and so tense were my nerves as a result of this work."

Another story is that of Professor Ludwig Quidde, a prominent Pacifist leader and writer in Germany. He was chairman of the twenty-third World's Peace Congress and had to preside in three languages. He says, "For many years I was a frightful stutterer. In fact, I was the worst stutterer I have ever heard and in certain situations, my weakness almost drove me mad as it probably did the people who had to listen to me..... I was at my worst in a social gathering. It was torment for me every time we had a dinner party at home and it was martyrdom to accept an invitation to a neighbor's home. Once, when I presented myself as a guest at a strange house, servants who did not know me slammed the door in my face with fright when they saw me choke and gasp, and unable to utter a word."

Speaking of his school days he says, "One of my hardest tasks was to translate orally from other languages. My sheer physical effort on such occasions was so intense that my desk would shake, and perspiration would stand out on my brow. Nor did my difficulty bear any relation to how well or how poorly I was prepared. I suppose the teacher suspected that I stuttered to cover up my ignorance, but I can say with a clear conscience as I look back upon that period of my life, that this was not the case. I should have admitted I did not know my lesson rather than endure the torture of stuttering."

In a 1928 issue of "The Survey", Dr. John A. Glassburg



tells a story about the "Stammering Kid" who was arrested for extortion and brought before Magistrate McAndrews of the West Side Court of New York City. He begged the court to keep his name secret because he did not want to disgrace his hard-working, respectable father. The boy was a violinist and wanted to be an actor but he stuttered and could not get along. He said to the judge, "It's harder to get on in school if you stutter than it is for ordinary boys. It takes you so long to answer a question. You look as if you were stupid and the others giggle at you. No one likes that."

So this sensitive boy ran away from home. Many times he was hungry and without money. During one of his hungry spells, he went to the apartment of a woman he had met, and begged her for the price of a meal. Because of his persistence, she told him to go away. For revenge he threatened to tell stories about her to her husband and then he was arrested for attempted extortion.

In the eyes of the law, this lad was a criminal but in the "eyes of humanity he was the unfortunate victim of his speech defect."

Dr. Glassburg also tells of Gertrude Grant who had given birth to her second illegitimate child. Because both children had to be committed to an orphanage, the mother was sent to a psychologist for a mental examination. Because she stuttered so badly, it was impossible to determine her I. Q. She was twenty-five years old but knew very little about her past history. Her father died when she was a baby and she did not know where her mother was. She had no relatives. She started to attend public school at six and was graduated at fourteen. She was now working as a silk





winder. Her stuttering began at eighteen years of age but she did not know the cause of it.

Because of her speech defect, she was unable to take part in the social activities of the other mill workers so she stayed at home and worried. Finally, a man came along and she was very happy because of his attention, but unless she succumbed to all his wishes he threatened to desert her. She would do anything rather than suffer more loneliness and so her first illegitimate child was born. The man deserted her.

A few months later she met another man. Another story of pleasure, love, fear of loneliness, pregnancy, and her second child was born. This man also abandoned her.

Gertrude Grant was not feeble-minded. She stuttered. She had no friends, no sympathy, no love--nothing but ridicule and jeers. People would not have her so she got from life what she could.

## II. Types, Classifications, and Descriptions of Major Disorders of Speech.

To make a satisfactory classification of speech defects is an extremely difficult task because the terms applied to speech disorders originate in many different viewpoints. One authority makes six major classifications based on the causes of the defects.<sup>1</sup> On the other hand, Dr. Travis of the University of Iowa says, "If we knew the exact nature of every disturbance of speech, there might be universal agreement in regard to a classification, but until we can see more clearly into the complex set of relations which are present in speech abnormalities there

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1. Borden, Richard C. and Busse, Alvin C., Speech Correction, pp. 128-131.



will remain a great difference in viewpoints."<sup>1</sup>

Individual terms vary greatly. In current literature, for instance, fifteen different nouns have been found applying to stuttering and seventeen different expressions relating to oral inaccuracy. The American Society for the Study of Disorders of Speech has published a temporary and incomplete dictionary of terms which sets forth seven major disorders.<sup>2</sup> This is a step in the right direction for students of speech disorders but the terms in this abridged classification frighten the ordinary teacher and layman. Imagine the thoughts of a young man when he is told that he is afflicted with "dysrhythmia pneunaphrasia" or the emotions of a young woman when she is informed that her trouble is "aphemia plastica!"

To make the explanation easy for a teacher or parent, I have divided the major disorders of speech into four classes: Speechlessness, Mispronunciations, Hesitant Speech, and Voice Inadequacies.

#### A. Speechlessness--

Speechlessness may be either organic or developmental. Two well-known forms of organic speechlessness are aphasia and mutism. "Aphasia," says Dr. Stinchfield, "is the most dreaded of speech disorders and one which is difficult to diagnose because of its possible complications."<sup>3</sup> Persons afflicted with aphasia suffer either a total or partial loss of the ability to speak and to understand spoken or written language. There are many different types of this disorder and a variety of causes are

1. Travis, Lee Edward, Speech Pathology, p. 36.

2. Robbins, S. D. and Stinchfield, Sara M., A Dictionary of Terms Dealing with Disorders of Speech, pp. 5, 6.

3. Stinchfield, Sara M., Speech Pathology, p. 32.

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listed by different authorities. Cerebral Lesions is the cause mentioned most often. Dr. Travis says, "Lesions in practically any part of the brain may affect such high-grade powers as are demanded by speech, reading, and writing."<sup>1</sup> Traumatic neurosis, prolonged strain or worry, shock, and toxic conditions are other causes.

Mutism, the other form of organic speechlessness, is due either to deafness or a mental defect. If an adult who has had normal hearing becomes deaf, speechlessness does not necessarily occur. But if the auditory nerves and centers of the baby or small child become affected, mutism may be the result.

If lack of speech is developmental, it is the result of the faulty functioning of speech mechanisms which are organically sound. Delayed speech is developmental. According to Helen Peppard, "The difficulty may lie in the child's inability to associate the auditory concept with the proper motor speech production."<sup>2</sup> Sometimes a child must have special training to help him with these fine coordinations. Often delayed speech is due to the child's environment. If the parents talk very little to each other or to the child, speech will be retarded.

#### B. Mispronunciations--

Under the second major class of speech disorders-- Mispronunciations--we find the main types to be: cleft-palate speech, tongue-tied speech, paralytic speech, lisping, baby talk, and foreignisms.

The results of cleft-palate speech is excessive nasality. Because the roof of the mouth is cut, there is no sounding

1. Travis, Lee Edward, Speech Pathology, p. 259.

2. Peppard, Helen, Correction of Speech Defects, p. 74.



board for the air coming from the lungs. The breath, instead of going through the lips passes through the nose thus causing the voice to be nasal in tone. In extreme cases of cleft-palate, the cut extends through the soft palate, the hard palate, the gum and the upper lip. Sometimes only the soft and hard palates are affected and sometimes only the soft palate is cleft.

Tongue-tied speech is caused by a physical defect which can be easily detected. The little tissue called the "frenum" that connects the under surface of the tongue blade to the floor of the mouth, should be attached at least an inch from the tip. This allows the tongue to be extended from one and one-fourth to one and three-fourths inches beyond the front teeth. If the frenum is attached too close to the tip, the result is a slovenly mumbling of sounds. A tied tongue affects mostly those sounds which are made near the front of the mouth such as "l", "s", "t", "d", and "n".

There are several forms of paralytic speech caused from various kinds of injuries which occur in the nervous system. In one form of paralysis, the speech is indistinct and thick and the voice takes on the same qualities. In another form, the individual has a scanning and staccato form of articulation. He speaks like a child spelling out his letters. In bulbar paralysis, the voice often becomes hoarse and as the physical condition becomes worse, the speech becomes more labored and finally unintelligible. Because of the paralysis of the throat, tongue and lip muscles and the consequent extreme effort of the person to talk, the voice often becomes very high in pitch.

Lisping is sometimes called "letter-sound substitution

The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present. The author then goes on to discuss the various factors which have shaped the development of the United States, including the influence of the British, the Spanish, and the French. He also discusses the role of the American people in the creation of the nation. The second part of the paper is a detailed account of the American Revolution. It begins with the first steps towards independence, and then goes on to describe the various battles and events which led to the final victory. The author also discusses the impact of the Revolution on the American people, and the changes which it brought about in the country. The third part of the paper is a discussion of the American Civil War. It begins with the causes of the war, and then goes on to describe the various battles and events which led to the final victory. The author also discusses the impact of the Civil War on the American people, and the changes which it brought about in the country. The fourth part of the paper is a discussion of the American West. It begins with the early exploration of the West, and then goes on to describe the various events which led to the settlement of the West. The author also discusses the impact of the West on the American people, and the changes which it brought about in the country. The fifth part of the paper is a discussion of the American South. It begins with the early settlement of the South, and then goes on to describe the various events which led to the development of the South. The author also discusses the impact of the South on the American people, and the changes which it brought about in the country. The sixth part of the paper is a discussion of the American North. It begins with the early settlement of the North, and then goes on to describe the various events which led to the development of the North. The author also discusses the impact of the North on the American people, and the changes which it brought about in the country. The seventh part of the paper is a discussion of the American Middle West. It begins with the early settlement of the Middle West, and then goes on to describe the various events which led to the development of the Middle West. The author also discusses the impact of the Middle West on the American people, and the changes which it brought about in the country. The eighth part of the paper is a discussion of the American Southwest. It begins with the early settlement of the Southwest, and then goes on to describe the various events which led to the development of the Southwest. The author also discusses the impact of the Southwest on the American people, and the changes which it brought about in the country. The ninth part of the paper is a discussion of the American Northwest. It begins with the early settlement of the Northwest, and then goes on to describe the various events which led to the development of the Northwest. The author also discusses the impact of the Northwest on the American people, and the changes which it brought about in the country. The tenth part of the paper is a discussion of the American Far West. It begins with the early settlement of the Far West, and then goes on to describe the various events which led to the development of the Far West. The author also discusses the impact of the Far West on the American people, and the changes which it brought about in the country. The final part of the paper is a conclusion. It summarizes the main points of the paper, and discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present, and that the study of the history of the United States is a vital part of the education of every American citizen.



and omission." In a broad sense, lisping is the incorrect production of the sibilant sounds--"s", "z", "sh", and "zh". Sometimes the faulty production extends to other letters--"t", "l", "n", "k", and "d". One authority speaks of "mechanical lisping" which is caused from the mal-formation of the teeth or jaws or dental arch.<sup>1</sup> Another author describes, "infantile lisping" and "lateral lisping".<sup>2</sup> In the former, the tongue protrudes between the teeth, e.g., "I thay tho" for, "I say so." Sluggish tongue action is the cause of most infantile lisping. In lateral lisping, the sibilant sounds come out over one or both sides of the tongue. This fault may be caused either from the teeth meeting in front but not at the sides, or from the falling of the soft palate to one side of the mouth or the other. In either case, the air coming from the lungs is driven out from the side of the mouth instead of over the center of the tongue as it should be. The majority of lisping cases are due either to a retention of infantile phonetic habits or to a retention of infantile emotional habits.

Baby talk is rarely the result of either mental or physical defects. Children acquire their speech habits by listening to others. Baby talk develops from an incorrect interpretation and production of sounds. In other words, an infant may be surrounded by a good speech environment and yet get wrong auditory images, or on the other hand, he may be compelled to listen day after day to "Does 'oo lub 'ooze muvver?" spoken by his parents or other children. Then of course, he can not help getting incorrect impressions of sounds. "I dot a pain in my

1. Blanton, Smiley, Speech Training for Children, p. 119.

2. Peppard, Helen, Correction of Speech Defects, p. 125.



tummie", may sound very "adorable" when Marjorie is four, but it will sound positively silly when she is in high school. It is very fortunate that most "baby talkers" outgrow their defect.

Foreign accent is extremely common both among school children and among adults. It is caused by an imperfect transition from a native tongue to English. And so the Italian exclaims, "Eet ees heem!" for, "It is him!"; and the German asks, "Vell den, vat do you tink of diss het?" for, "Well then, what do you think of this hat?"; and the Swede announces, "Dees faller--rss can't play yoke on me!" for, "These fellows can't play a joke on me." Many Americans, especially children of foreign birth or foreign parentage, live in an environment of either foreign speech or of English mixed with foreign speech. There is more tongue action in the producing of English than is found in most other languages. The short vowels in English also cause much trouble for the foreigner.

### C. Hesitant Speech--

Under the third major class of speech disorders--Hesitant Speech--the main types are cluttering and stuttering. Both of these are sometimes called nervous speech disorders because, in reality, they are symptoms of psychologic disturbances.<sup>1</sup>

Cluttering is a rapid choppy utterance, the result of which is the slurring over or omitting of certain parts of the word.

The terms "stuttering" and "stammering" are used interchangeably by speech specialists here in America. Stuttering is the more commonly used term. It usually denotes rapid, spasmodic

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1. Blanton, Smiley, Child Guidance, p. 110.





speech with a repetition of the initial sound of the words as, "I c-c-c-can't g-g-g-go n-n-n-now." Besides this form of stuttering, Borden and Busse describe four other impairments:

1. Retardation--"What a.....big.....boy.....is...Bob." The individual pauses between the words indicate struggles for utterance.
2. Acceleration--"Juwannmeego?" for "Do you want me to go?"
3. Prolongation--"NNNNever mmmmmind wwwwaiting."
4. Use of Starters--"Now-now-come go-now-now-with me to the-now-now-show."<sup>1</sup>

Sometimes stuttering is so serious that it not only affects the actual speech of the individual, but it also shows itself in spasms and distortions of the face, in the jerking and contraction of different portions of the body, and in extreme contractions of the vocal cords and diaphragmatic muscles.

Stuttering is the most serious of all the speech defects because the main underlying cause for it is psychological. The most common causes which bring on this impediment are shock from injury, fright, serious illness, nervous debility, forcing a left-handed person to write with his right hand, and emotional conflicts and disturbances of all kinds.<sup>2</sup> It is interesting to note that stuttering is believed to be much more common among boys than among girls.<sup>3</sup>

Many of those who have been investigating the causes of stuttering have learned that nearly all stutterers can talk in the dark, to animals or to young babies; can talk when acting a con-

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1. Borden, Richard C. and Busse, Alvin C., Speech Correction, p. 278.
  2. Travis, Lee Edward, Speech Pathology, p. 255.
  3. Fletcher, John M., The Problem of Stuttering, p. 57.

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genial part in a play or over a telephone when it is disconnected.

#### D. Voice Inadequacies--

Under the fourth class of speech disorders--Voice Inadequacies--will be considered, aphonia, nasality, hoarseness and huskiness, weakness, loudness, and disturbances of inflection.

In nearly all phases of American life, there is the need for speakers--in education, in politics, in economics, in religion. "Whenever a man has been on trial for his life or has sought to awaken the patriotism or quicken the life of his race, the means that has always been adopted has been oratory-----Discourse is the crowning achievement of the human mind, without which freedom, benevolence, and progress have ever slumbered."<sup>1</sup>

How interesting it is just to listen to voices! It is universally recognized that American voices are cold and harsh and unpleasant. Many teachers are injuring their health, hindering their progress and making nervous wrecks of their students because of their monotonous, high-pitched voices. Hundreds of ministers and orators are shortening their lives because they are misusing their voices.

Aphonia, or the loss of the voice, is the most alarming of all speech defects although it is not nearly so common as many of the other disorders. It results most often from acute laryngitis, extreme weakness of the muscles of the larynx following an exhausting illness and from laryngeal paralysis. Sometimes the cause is psychoneurosis as in many shell-shock cases during the World War.

Dr. S. S. Curry says, "The resonance of the nasal pas-  
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1. Curry, S. S., Province of Expression, p. 428.





sages is one of the richest and most important elements in the human voice. Any obstructions of this element of resonance is the most disagreeable of all perversions."<sup>1</sup> There are three forms of nasality. The one which is frequent in most parts of the United States is caused by a constriction of the back of the tongue and usually also of the pillars of the soft palate. The second form is caused by a relaxation or weakness of the soft palate, and the third form is due to mucus or other obstructions of the nose.

Hoarseness results when the vocal cords are swollen or when too much mucus is secreted upon the cords. When the voice is hoarse, it should not be used.

Huskiness is often caused by a chronic condition of the vocal bands which develops because of neglect of "colds" or other throat diseases. Sometimes huskiness will develop when one tries to strengthen his voice by making loud tones and pushing and forcing the breath until the vocal bands cannot adjust themselves in position.

The voice is dependent upon both the body and the mind. Faults of voice, therefore, result from a lack of certain natural coordinations between mind and voice or between body and voice. Voice is only vibration, and to give it true strength or power and naturalness at the same time, it is necessary to control or retain the greatest possible amount of breath in the lungs during the emission of tone.

Weakness of voice is directly connected with lack of support or lack of control over the breath. The general health

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1. Curry, S. S., Mind and Voice, p. 157.



may be back of this condition, and the first steps toward betterment is the improvement of the health and the centering of attention upon deeper, freer, and more rhythmic breathing.

Many persons believe that to express earnestness and intensity is to make the voice loud. "Loudness, high pitch, and hurry," says Dr. S. S. Curry, "are the three chief methods of wasting emotion." Loudness is forcing the voice on any vowel that happens to fit the mouth, because the emotion is allowed to explode suddenly. Loudness is the opposite of intensity. The strong man is intense in the expression of his emotions; the weak one is loud. Intensity demands great frequency in breathing as well as a retention of a great amount of breath. Pauses, change of pitch, and long inflections will express earnestness. Loudness expresses only a pretense of earnestness.

Inflection is a change of pitch during the emission of a central vowel in a word. It may be called the "bend of the voice upward or downward." Inflections are fundamental characteristics of naturalness in speech and they are the last elements of speech to be mastered by the foreigner.

Inflections may have direction, length and abruptness. A rising inflection denotes doubt or question, a negative attitude of mind, an appeal to the judgment of the hearer. A falling inflection shows conviction, certainty, earnestness, directness, etc.

Either rising or falling inflections may vary greatly in their length. "The length of an inflection is in proportion to the clearness, positiveness, or vigor of the thought or emotion." Long inflections show power and should be cultivated.





However, when inflections are too long, the result is a tiresome drawling.

Inflections not only change in direction and length but they change either gradually or quickly. When gradual, they express deliberation and calmness; when abrupt, they show great excitement, domination of one mind over another, or antagonism.

Sometimes inflections are not straight--they are crooked or "circumflex". Dr. Curry says, "Circumflex inflections imply undignified conditions, lack of sincerity, playful, sarcastic, or negative attitudes of mind towards truth or towards persons.....when there is a crook in the mind, there is a crook in the voice." One of the worst faults of voice is to use circumflex inflections to express tenderness and kindness. If inflection is mastered, it becomes the basis of naturalness and effectiveness in speaking.

### III. Current Basic Ideas in Therapeutic Treatment of Stuttering.

It would be extremely interesting to investigate and record all the known causes of the four classes of speech described in this paper. It would be far more interesting to make a study of remedies and cures. Much informative material, for example, has been written on how surgeons have helped hundreds of children who have cleft palates or tied tongues. Dozens of helpful books have been published describing exercises, which if practised intelligently and regularly, will eradicate lisping or foreign dialect or nasality or circumflex inflections. But it is not the purpose of this study to discuss causes and therapeutic treatments except in the case of stuttering which is the most serious of all speech defects.

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The subject of stuttering has occupied for many years, and is still occupying the attention of many teachers, physicians, and speech pathologists. Volume after volume has been written on the subject and much scientific investigation is being carried on each year to discover causes and cures for this extremely serious speech difficulty.

Before taking up the various current ideas in therapeutic treatment, it will be necessary to consider the personality of a stutterer. According to most authorities, stuttering usually begins when the individual is required to make some physical or social adjustment. For example, when the child starts to school, he sometimes finds himself unable to meet the responsibilities and obligations of the communal life. If he has been pampered at home, then the adjustment to the group is doubly hard. The emotional disturbance results in stuttering. Serious illness is often back of stuttering. A child may be treated with more than usual consideration during a period of illness, but when he recovers, of course he is expected to assume normal obligations. Sometimes, he attempts to gain the "paradise of the sick room" by stuttering.

Stuttering may begin in adolescence. At this period, the child is faced with the problems of sexual adjustment for the first time. The sexual education of the pampered child has made him afraid of assuming the normal adult role, and, therefore, he begins to stutter.

Most authorities agree that the percentage of the cases of stuttering that are caused by organic or physical defects is negligible. The trouble is essentially due to emotional distur-





bances which in turn cause the stutterer to feel timid, inferior, uncertain, and inadequate. He stutters most when he is confronted with a painful situation or a disagreeable task.

Professor Samuel D. Robbins, Director of the Boston Stammerers' Institute, who was a severe stutterer for several years and who has talked with more than a thousand stutterers, gives the interesting information that stammerers "usually speak fluently when they expect to experience no difficulty in speaking, but that they usually stammer whenever they expect that they will."<sup>1</sup> In other words, the fear of stammering is one of the most important symptoms of stammering.

Sometimes, as a stuttering child grows older, he fears that his speech organs will refuse to work and then he will be the object of ridicule. A sense of inferiority develops and then a vicious circle is established--the greater the dread, the more imperfect the speech becomes. As time goes on, he begins to avoid social contacts and then follows an introspective and isolated style of living. As someone has said, "He attempts to wage war with a phantom adversary whom he himself has created."

Before much was known about the causes of stuttering, many things were done to relieve children and adults who suffered. All sorts of experiments were carried on; the tongue was cut, the tonsils and uvula were removed, and objects were placed under the tongue to raise the tip. As time went on, vocal and breathing exercises and phonetic drills became favorite methods of treatment. Some successful speech pathologists still use these methods as part of their treatments.

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1. Robbins, S. D., Stammering and Its Treatment, p. 10.



Many believe that, because the breathing of a stutterer is spasmodic or unrhythmical, the difficulty is faulty breathing. The real truth is that fear is back of the faulty breathing. The fear may be conscious or it may be burned deeply into the subconscious.

There is no one royal road to the treatment of stuttering. The various current ideas of treatment will be considered under the following headings: medical, sensory imagery, cerebral dominance, psychotherapy or mental hygiene, and re-educational.

#### A. Medical--

Physicians have come to realize that disturbances of the glands of internal secretions may be one of the causes of stuttering. Some of them are administering the proper glandular extracts to correct these difficulties. Doctors are also doing valuable work in physical hygiene which is aiding stutterers in their efforts to become normal. Mal-nutrition and anemia are being treated and the value of fresh air, good food, and sunshine is being impressed upon the sufferers. Help is given to stutterers often when adenoids or tonsils are removed or when uvulas are made shorter.

#### B. Sensory Imagery--

Some authorities believe that stuttering may be relieved by improving the patient's imagery of essential speech factors, but they do not all agree as to what form of imagery is defective.

Dr. Walter B. Swift, a physician of Boston, says that stuttering is due to faulty visual imagery. He has helped many patients by getting them to picture or visualize actually the objects for which the difficult words (to say) stand.<sup>1</sup>

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1. West, Robert, "A Symposium on Stuttering", The Quarterly Journal of Speech, XVII (June, 1931), p. 302.





Dr. C. S. Bluemel, a physician of Denver, Colorado, believes much stuttering is due to an impediment in thought--"auditory amnesia." Dr. Bluemel says, "I believe that the verbal imagery momentarily drops out of the stream of consciousness, and that this loss of imagery blocks the stammerer's speech..... When he develops fear of particular words, he then begins to look for synonyms and circumlocutions, and if there is no ready escape, he may go into a tail-spin of confusion."<sup>1</sup>

This physician's treatment is to get the student to give his whole attention to mental speech. He is urged to listen quietly for his thoughts and to make no attempt to control the organs of speech but to let the mind "broadcast to the mouth and to permit the speech to produce itself. Much of the pupil's training consists in mental drill. He is at first unable to resist from his struggle with speech, and he is therefore trained to relinquish his attempt at speech altogether and to come to a halt when the teacher signals with a snap of a castanet. A short period of silence then ensues, during which the stammerer regains his composure. When he appears thoroughly tranquilized he is given the signal to proceed--a light tap of the castanet. There is much rigorous drill of this nature, and the signals or commands are retained in the speech work till the pupil is able to eliminate his physical stammering, and to speak quietly with his attention upon his thought."<sup>2</sup>

### C. Cerebral Dominance--

Dr. Lee E. Travis of the University of Iowa has worked

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1. West, Robert, "A Symposium on Stuttering", The Quarterly Journal of Speech, XVII (June, 1931), p. 303.
  2. Ibid., p. 303.



out a theory of stammering based on the idea that the left cerebral hemisphere of the strictly right-handed individuals and the right hemisphere of the strictly left-handed individuals are the centers for speaking, reading, and writing. Any disturbance of this arrangement causes a lack of dominant brain control, and the two centers or hemispheres are in "rivalrous equipoise." This lack of dominance may be hereditary, it may be caused from brain injuries, from physical or mental diseases, or from forcing a naturally left-handed individual to become right-handed or ambidextrous.<sup>1</sup>

Dr. Travis gives some general directions about physical and mental hygiene but his main method of treatment is given through exercises such as bag-punching, ball-throwing, tennis-playing, ping-pong, horseshoes, etc.

#### D. Psychotherapy or Mental Hygiene--

The treatment of stuttering by the use of mental hygiene has many advocates. Dr. Smiley Blanton and Dr. Isador Coriat believe that abnormal oral eroticism is an explanation of the stutterer's spasms. Dr. Blanton says, "Psychoanalysis has made a valuable contribution to the cause and treatment of stuttering. The first stage of the love life of the child is the oral erotic stage in which the child not only uses the mouth to get nourishment, but also to get sexual pleasure of the infantile type. The mouth region is highly charged with emotion, and sounds are made partly because of the pleasure they give through the stimulation of the vocal organs. This oral erotic stage passes normally. Sometimes, however, the child remains fixed in this

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1. Brown, Frederick W., "Among the New Books", The Journal of Expression, V (October, 1931), pp. 190-192.





stage and also his love energy is centered upon himself and he becomes narcissistic. It is this narcissism which gives rise to timidity and self-consciousness."<sup>1</sup>

Dr. Coriat's position is that, "When a stammerer attempts to talk, the mouth movements are the persistence into maturity of the original sucking and biting lip-nipple activities of infancy-----The stammerer, therefore, in the course of his development, has not successfully overcome this early nursing phase, but remains fixed at this infantile stage of oral tendency -----Excessive mouth eroticism, therefore, is not only at the basis of all stammering, but the mouth has become the principal and all-powerful organ of the earlier nursing pleasures which are gratified through the oral discharge into speech."<sup>2</sup>

Not all mental hygienists go as far as these two men in the use of psychoanalysis. Sometimes psychoanalysis is used on the sufferer to reveal to him the nature of the conflict which is causing the stuttering. The stored up and repressed emotions are liberated, and through analysis and discussions with the psychiatrist, a real adjustment is established. Suggestion is often used to create in the stutterer a spirit of self-confidence. By all means, faulty attitudes which give rise to tension must be changed. Dr. Blanton believes that the child who stutters should not be permitted to become a victim of introspection. He should be helped to adjust himself to other children and to share their work and play.<sup>3</sup>

Dr. Alfred Appelt of England, who was a stutterer all

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1. West, Robert, "A Symposium on Stuttering", The Quarterly Journal of Speech, XVII (June, 1931), p. 308.
  2. Ibid., p. 308-9.
  3. Blanton, Smiley, Speech Training for Children, p. 109.

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during his childhood and early manhood, declares that stammering can be permanently cured through psychoanalysis. The treatment is careful and thorough and the first essential of it is a "clear realization of the manner in which the stammerer has built around himself a complicated system of psychic reactions which is intended to protect him."<sup>1</sup>

In order to gain an insight into the mental life of the stammerer, according to Dr. Appelt, it is necessary to learn about the history of his complaint. This is done through questioning him and his parents or other relatives concerning the beginning of his stammering, his character, his organic inferiorities, his family, his education, and his conduct at school. This history is gone into very thoroughly and then when the neurotic qualities are discovered, an effort is made to substitute other qualities. For example, "Feelings of inferiority" are changed to a "sensible attitude to the problems of life based upon equality. A proper understanding of the facts of life brings with it the sense of responsibility", or for the neurotic quality of "discouragement and egocentric tendency to compensation" are substituted "courage and the will to act and do."<sup>2</sup>

The actual treatment of Dr. Appelt is in four steps:

1. The establishment of a really friendly relationship so as to win the patient's cooperation.
2. Bringing to light the patient's false style of life (plan of life) and help him to get rid of it.
3. Encouragement (without directly mentioning it!) aimed especially at getting the patient to start doing things and widening his circle of general usefulness.

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 1. Appelt, Alfred, Stammering and Its Permanent Cure, p. 178.  
 2. Ibid., p. 180.





4. Release. The necessity for personal action must be emphasized in such a way that the eventual formation of a relation of dependence towards the doctor is entirely avoided.<sup>1</sup>

#### E. Re-educational--

In the re-educational method of treatment, much attention is given to relaxation. Consistently, regularly, and intelligently, exercises are practised for the relaxation of arms, hands, legs, thighs, abdomen, etc. Nearly all stutterers can talk in a relaxed condition. Dr. Blanton says, "Effort should be made to teach the stutterer to keep as relaxed as possible when he goes about his activities and to talk in the same way that he talked when he was completely relaxed."<sup>2</sup>

Professor Samuel D. Robbins says to his students, "You must practise relaxation exercises until you have acquired an ability to relax any muscle in your body at will.....If you practise complete relaxation several times a day until normal speech has become a firmly rooted habit, you will be able to relax completely the instant you become afraid you are going to stammer, and in this way you will partly counteract the increased flow of blood to the brain which otherwise might make you stammer."<sup>3</sup>

Vocal training and phonetics are also used in the re-educational method. There are those authorities, however, who believe that breathing and phonetic drills make the stutterer more self-conscious. Dr. and Mrs. Blanton have found that speech training is valuable in correcting speech disorders of all kinds.

"Speaking in a conversational way to a group or debating, or better still, acting is excellent. Acting is the most helpful means

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1. Appelt, Alfred, Stammering and Its Permanent Cure, p. 198.

2. Blanton, Smiley, "Why Children Stutter", Parents' Magazine, February, 1931, p. 65.

3. Robbins, Samuel D., Stammering and Its Treatment, p. 47.

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of training because it gives the student the joy, the self-confidence, and poise that come with a successful performance."<sup>1</sup>

Whatever method or combination of methods is used in the cure of stuttering, it requires patience on the part of the patient and the pathologist. Though the treatment may be difficult and tedious, the results are worth the efforts. By overcoming a speech defect, one can change the attitude, the behavior and the personality of an individual and readjust him properly to his environment.

#### IV. Training for Speech Correction.

There is nothing surprisingly new about speech education. Demosthenes with pebbles in his mouth stood on the seashore and shouted to the waves in order to cure his stuttering. Those who took "elocution" twenty-five years ago remember how they suffered trying to learn "to express" with their bodies and faces according to Delsarte, surprise, tenderness, terror, sorrow, and the "rest of the seventy deadly emotions."

When speech training was first introduced into the public schools, the classes were exceedingly uninteresting "combinations of English composition and old-fashioned piece-saying." Most of the teachers of that time who were interested in speech had been trained in some "form" of elocution and much of their teaching was "based on the worship of some great leader whose principles they followed to the letter." They had little scientific background. As Miss Emma Grant Meader of Russell Sage College said, "Those pioneer teachers were 'long' on speech and 'short'

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1. Blanton, Smiley, "Why Children Stutter", Parents' Magazine, February, 1931, p. 65.





on psychology." Even today in some secondary schools, the speech problems of the students are met by oratorical contests only. In some public school systems the work in speech is still a part of the English departments and the high school students who take the required English courses are given only one day a week in "oral English".

But during the last ten years, teachers of speech have "come into their own." Theirs is now a real profession; no longer does speech necessarily depend upon other departments for its support and opportunity. There is now a "National Association of Teachers of Speech" which began in 1913 and which publishes a magazine, "The Quarterly Journal of Speech", devoted to problems in speech education. In the November 1931 issue, for example, may be found these interesting discussions:

"Character Development through Speech", "Practical, Aesthetic, and Scientific Attitudes toward Public Speech", "Speech Achievement in the Elementary School", "The Relation of Language to Thought", and "Some Notes on the Teaching of Business Speech".

Miss Azubah Latham of Teachers' College, Columbia University said in June, 1931, "The requests coming to directors of speech departments and to bureaus of educational service for recommendation of candidates for positions in speech education have been rapidly increasing the past five years and are still gaining. It is not easy to fill all the positions because of the great variety of skills required and because of the increase in the severity of the academic preparation expected of candidates.....The recent raising of standards of voice and diction in city and state examinations is bringing marked demand for those who under-



stand voice building and repair, phonetics and the correction of foreign accent, and the correction of speech defects in general."<sup>1</sup>

To realize how really important the subject of speech correction is becoming in the educational field, it is only necessary to read the programs of some of the conventions of teachers of speech. At the second annual convention of the Western Association of Teachers of Speech held in San Francisco in November, 1930, some of the subjects discussed at the sectional conference on speech correction were: "The Problem of Nomenclature in Speech Correction", "Case Studies; A Vital Necessity in Speech Correction", "The Importance of the Theory of a Science of Therapy of Speech Disorders".

When the fifteenth annual Convention of the National Association of Teachers of Speech was held in Chicago in December, 1930, one whole day was given to the general session and many sectional conferences were devoted to a discussion of disorders of speech. Some of the subjects were: "The Educational Approach in the Problem of Stuttering", "Twelve Years of Visual Treatment of Stammering", "The Problem of the Correction of Stammering in Large School Systems", "Relationship of Personality and Behavior Difficulties to Disorders of Speech".

It is interesting to note also that there is in existence an "American Society for the Study of Disorders of Speech" and that this society was back of the extensive program at the Chicago convention when twenty-eight specialists from all parts of the United States gathered to present their own theories of treatment and to discuss one another's theories.

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1. Latham, Azubah, "The Present Outlook for Speech Education", Quarterly Journal of Speech, XVII (June, 1931), pp. 347-8.

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### A. Public Schools--

When the special committee on defective speech, made its survey for the "White House Conference" in 1931, it sent an elaborate questionnaire to the boards of education of all cities of the United States having a population of ten thousand or more. Forty-eight cities responded and from these questionnaires the committee gathered approximate answers to five questions.<sup>1</sup> Three of these answers will be considered here, because they give a very good idea of what is being done in the public schools of the United States for children with defective speech. The first of the three questions to be considered is: "What is being done for these children?"

It was found that speech correction work is limited to the public school systems of cities; smaller towns and rural communities do not have facilities for the correction of speech disorders. The work is done much more efficiently and economically in the child's primary school than later. The total number of teachers employed for speech correction in the forty-eight cities is 212 and the number of students receiving instruction is 70,368. Philadelphia has the greatest number of teachers--fifty-four, and the next three cities in order are Detroit with thirty-five teachers, New York City with twenty-seven, and Chicago with twenty. Seventeen of the forty-eight cities have only one teacher of speech correction.

It was extremely interesting to note in the report of the committee how rapidly the various defects decreased in number from grade to grade as the instruction continued. For ex-

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1. The White House Conference, Special Education, p. 349.



ample, take Minneapolis. In the first grade, there were 865 cases of sound substitution; in the third grade, there were 348; in the fifth, only 160; in the eighth, eleven; and in the eleventh and twelfth, none.

In Los Angeles we find in the first grade, seventy-three cases of stuttering; in the third, ninety-two; in the fifth, seventy-three; in the eighth, seventy; and in the eleventh and twelfth grades, one hundred fifteen.

In the Philadelphia schools, in the first grade there were 194 cases of dialectal defects; in the third, 102; in the fifth, 191; in the eighth, twenty-eight; and in the eleventh and twelfth, twenty-eight.

The second question of the committee to be taken up here is: "How much does this work cost?"

The average cost for each student in a program of speech correction as it is now organized is approximately ten dollars per annum. Of the forty-eight cities, Chicago is spending the largest average sum for each student--forty-eight dollars, and Baltimore is spending the smallest--three dollars.

The third question is, "What should be done about the children defective in speech?"

In order to solve the problem of speech defectives among the children in the public schools the following described activities must be carried on:

"Speech Correction Proper. The practice in schools, clinics or private offices of the art of retraining the language habits of those defective as to speech; stimulating and developing the language habits of those retarded as to speech, and ar-





resting and preventing the development of incipient disorders of speech.

"Training of Practitioners. The teaching in normal schools, colleges and universities, of those who are later to have the responsibility for the re-education of speech defectives. This teaching will be both theoretical and clinical.

"Research. A professional study, largely in the clinic or laboratory that should lead to a better understanding of the nature of pathological conditions of speech and to better methods of correcting such conditions."<sup>1</sup>

Following this description, the committee then made ten definite recommendations for the successful prosecution of speech correction in the schools of the United States.<sup>2</sup> These recommendations are too long to quote here but they should be known by every teacher and parent interested in speech correction.

A brief account of what one state is doing in speech correction gives an idea of the possibilities in this field of education. In California one of the branches of the State Department of Education is called, "The Bureau of Correction of Speech Defects and Disorders of California". Two field workers travel over the state promoting the work and urging teachers to attend summer schools to receive training. These field workers do many other things, such as conducting conferences with school officials, with boards of education, behavior clinics, etc.

Speech correction classes have been established in thirty-three school districts of California. San Francisco has speech

1. The White House Conference, Special Education, p. 377.

2. Ibid., pp. 378-81.

ORIGINAL ARTICLES

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RESISTANCE OF THE BODY TO INFECTION  
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correction classes in every public school, and Los Angeles has eighteen full-time speech teachers. Since November, 1929, children with speech defects have been on the same basis as the physically handicapped children and have received from the state the same reimbursement for the cost of their education as is given to the crippled, the deaf, and the blind. California hopes soon to have speech training classes for every city in the state, and union districts for rural communities.

#### B. Colleges and Universities--

One need give only a little study to the types and causes of speech defects and to outline the current ideas of treatment and cure, before he begins to realize strongly that the field has no place for untrained teachers or for charlatans. A part of one of the recommendations offered by the special committee of the White House Conference was: "The training of the worker in speech correction should be more than that required to general teachers of the same rank, and the additional work should include a well balanced offering selected from the following subjects: phonetics, physiology, anatomy, neurology, psychology, education, psychometrics, biochemistry, genetics, sociology, physical education, and speech.....It will probably come about, therefore, that the staff members of the speech-correction departments of our public schools will receive their training in teachers' colleges or in schools of education in universities, and that the trainers of these teachers will have received their technical education in the graduate schools of universities offering very advanced work in speech pathology."<sup>1</sup> In other words,

1. White House Conference, Special Education, p. 380.

FOOTNOTES TO CHAPTER I.

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the work of helping those handicapped by speech difficulties is not the task of a beginner in speech training; it is the task of the trained specialist in speech pathology.

With this idea in mind, I wrote personal letters to the speech departments of eleven colleges and universities in the United States that are known to be giving special training in speech correction to teachers and others who will direct the re-education of children and adults handicapped because of speech disorders. In these letters, which were addressed to the professors in charge of the speech pathology work, I asked definite and concise questions about the courses offered, the entrance requirements, the opportunities for clinical practice, etc. Nine of the eleven professors responded, describing briefly the thorough, careful, and scientific work done for those being trained in speech pathology. The answers to the questions which follow were obtained both from the letters received and from catalogs and other literature sent to me by the various registrars.

What specific speech correction courses are offered?

Columbia University--Diagnosis and Treatment of Speech Disorders, Speech Correction Clinic, Phonetics for Teachers, Problems in Speech Education.

University of Iowa--Speech Pathology, Clinical Practice in Speech Pathology, Application of Phonetics to Speech Correction, Mental Hygiene, Vocal Anatomy, Experimental Phonetics, Clinical Testing.

University of Minnesota--Speech Correction, Speech Pathology, Phonetics, Physiology of Speech, Clinical Methods and Practice, Psychology of Speech.

Northwestern University--Voice and Diction, Speech Re-education, Anatomy, Seminar in Voice Science, Seminar in Speech Pathology.

Oregon State College--One speech correction course offered for those students in the college who are handicapped with the various speech impediments. This course open to outsiders to a limited extent. No courses offered to train people to do cor-



rective work themselves. Such courses may be offered in the future.

San Jose State College--Phonetics, Correction of Speech Defects, Advanced Speech Correction.

University of Southern California--Voice Science, Psychology of Speech and Voice, Correction of Minor Speech Defects, Correction of Major Speech Defects, Seminar in Speech Pathology.

Syracuse University--Speech Correction and Speech Hygiene. The first semester is a content course and the second is methods.

University of Wisconsin--Survey of Field of Speech Correction, Theory of Pathology, Clinical Methods, Seminar in Speech Correction.

What are the general entrance requirements?

Columbia--Students with a major interest in speech may pursue a program of study leading to the degree of master of arts or doctor of philosophy. A fundamental course in voice and diction is recommended.

Iowa--In general, the courses are open only to upper classmen and graduate students. There are no stringent prerequisites but a good background in psychology, speech, and anatomy would be very helpful.

Minnesota--General psychology, voice science and other fundamental courses in physiology and psychology are required. Mature persons with a good deal of speech pathology background may take speech correction courses in the summer without being required to take previous courses.

Northwestern--Most of the courses are open to juniors, seniors, and graduate students with a background of general psychology.

San Jose--Physiology and elementary psychology are prerequisites for the advanced course in speech correction. Abnormal psychology, mental hygiene and the physics of sound are other courses advised in connection with speech correction. Advance courses open only to seniors.

Southern California--For the course in psychology of speech and voice--completion of two years' work at a recognized college or university. Correction of major speech defects--an A. B. degree.

Syracuse--The course is open to juniors and seniors of the School of Speech, Teachers College and to A. B. candidates who have had educational psychology.

Wisconsin--Entrance requirements to elementary courses are junior standing in the university. For other courses, Speech 1 and 2 in the Department of Speech are prerequisites. All students are required to take courses in phonetics and voice science.





Are the courses limited in the number registering?  
If not, what is the average number of those taking the courses?

Columbia--Membership not limited. The number ranges from forty to eighty.

Minnesota--Speech Correction Course--thirty students. Speech Pathology--twelve students. The enrollment varies from year to year.

San Jose--Classes not limited in number. The larger group contains twenty students.

Syracuse--The registrations for the speech correction courses vary from ten to twenty.

Wisconsin--There has been no necessity for limiting the number of people registering in the courses. The elementary course has thirty and the seminar has eight.

The other four colleges did not answer this question.

Is practical clinical work offered?

Columbia--Practical work in the clinic is given. The instruction is mostly personal supervision.

Iowa--Good opportunities for actual clinical work in handling a wide variety of speech defectives.

Minnesota--A clinic is run in connection with the speech correction courses. The work is done by students in the advanced courses in speech pathology.

Northwestern--Practical teaching and observation done by the advanced students in the school clinic. Also work is done in outlying centers such as high schools and grade schools.

Oregon--There is a well equipped clinic, probably the best on the West coast.

San Jose--Each student is required to do personal laboratory work in connection with the speech clinic and is supervised by the instructor. No extra credit is given for the work, however.

Southern California--A temporary clinic is now organized. The Hill-Young School of Speech is used as a laboratory.

Syracuse--A clinic is maintained during the first semester for observation and practice. In the second semester, the work is done by students, under supervision, in the public schools of the city.

Wisconsin--In connection with the course in clinical methods there is practical work of cases.



Are there opportunities for research work?

Columbia--Research is encouraged and fostered leading to a doctorate degree.

Iowa--B. A., M. A., and Ph. D. degrees are given in speech pathology. Four doctorates were granted last year and there will be three this year.

Minnesota--Seminar and research work is offered to graduate students engaged in thesis projects.

Northwestern--There are opportunities for research work leading to advanced degrees. They are determined by the student's background and qualifications and interests.

Oregon--No opportunities for research.

San Jose--There is no graduate college; hence no opportunities for research.

Southern California--Opportunities for research leading to a doctorate degree.

Syracuse--Plenty of opportunities for advanced work for students who are qualified to do a high degree of research.

Wisconsin--A student may complete his Ph. D. in this field if he so desires and has the ability.

What is the tuition cost?

The following answers do not include matriculation or special fees. One of the nine colleges did not answer this question.

Columbia--Ten dollars a point.

Iowa--Forty-eight dollars a semester for graduate students and sixty-eight dollars a semester for undergraduate students.

Minnesota--Resident students, twenty dollars per quarter. Non-resident students, thirty dollars per quarter.

Northwestern--Two hundred dollars a semester.

Oregon--Residents of Oregon admitted free. Non-resident students, one hundred fifty dollars a year.

San Jose--State registration fee, one dollar each quarter.

Southern California--Graduate tuition, ten dollars each semester unit.

Wisconsin--Non-resident tuition, one hundred dollars each semester.





To summarize, eight of the schools offer both elementary and advanced courses in the treatment of speech disorders. Phonetics, physiology and psychology of speech, and speech pathology are the most commonly mentioned subjects in the various courses. The general entrance requirements for the courses are junior, senior, or graduate standing. The membership of the classes is not limited in number in any of the schools. The number enrolled in each class ranges from ten to eighty. In all but one school, opportunities are offered for laboratory observation work and practical clinical experience. Seven of the colleges encourage and foster research work leading to advanced degrees in speech pathology. The tuition costs range from the state registration fee of one dollar each quarter at San Jose State Teachers' College to two hundred dollars a semester at Northwestern University.

### C. Clinics--

The college speech clinic is not very old in the educational field. One of the best known is the clinic which has been maintained for eight years at Oregon State College in Corvallis, Oregon. Professor Earl W. Wells is the director. This clinic, according to its director, has certain definite objectives: First, it assists free of charge, the students of Oregon State College whose speech is defective; second, it offers its services to any person in the state either through consultation or through correspondence; third, it has undertaken to carry speech correction into the public schools of the state.

In diagnosis, Professor Wells uses the case history method. For his own use, he has developed a history in five



parts: the speech history of the patient, the physical history, the mental history, the social history, and the family history.

His methods of treatment "fall into four general categories":<sup>1</sup> First, certain organic cases are sent to the physician, surgeon or dentist; second, various devices are used to help the patient, such as charts and models, phonetic charts, phonograph records on correct pronunciation, etc.; third, use of special exercises in vocalization, articulation, and pronunciation; and fourth, use of mental and social hygiene.

Mr. Wells's ideas in regard to the use of mental hygiene are interesting. He says, "I am inclined to feel that the value of psychotherapy is too often overestimated. If the biologist and behaviorist ultimately succeed in reducing you and me to mere machines, the future writers will probably class modern psychotherapy along with magic, soothsaying, witchery, fetish worship, and the rest of such 'bosh'. At least, it will have to be reduced to physical and chemical terms: such terms as mental inhibitions, inferiority complexes, suppressed desires, compulsion mechanisms, etc., will have to be replaced by measurable realities. But I feel that enough good has been accomplished by psychotherapy to warrant its continued use in the speech clinic. The main thing is to employ psychotherapeutic methods with judgment."<sup>2</sup>

Another well-known clinic is the Vanderbilt Clinic of Columbia University. Mrs. E. W. Scripture is the director. Mrs. Scripture believes that a clinic for the re-education of speech

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1. Cable, W. Arthur (Editor), Cultural and Scientific Speech Education Today, p. 181.

2. Ibid., p. 182.

*[The text on this page is extremely faint and illegible. It appears to be a multi-paragraph document, possibly a letter or a report, with several lines of text visible across the page.]*





disturbances present numerous cases that need the physician, the psychiatrist, the neurologist, the psychologist, and the educator.

The Vanderbilt Clinic uses the case method of diagnosis too. When it comes to treatment, Mrs. Scripture says, "It must be apparent that a system of therapy based only on a re-establishment of proper mechanical speech habits must prove a failure-----  
-----A rational system of speech training for stuttering which does not include psychological investigation and removal of emotional problems will prove a waste of effort."<sup>1</sup>

Mrs. Scripture's outline of her method of speech re-education for stuttering is given here. The exercises are varied to suit each particular case and are used along with the psychological healing of the patient. The steps in the program are: Relaxation, Breathing, Melody, Flexibility, Slowness, Smoothness, Starting and Ending Sentences, Voice Quality, Enunciation and Articulation, Expression, Confidence, Spontaneous Speech, Thinking.

Under each of these divisions, are listed the various exercises used to develop the particular quality desired. Relaxation plays a great part in Mrs. Scripture's system and to give an idea of the kinds of exercises which she uses, these are the ones under Relaxation: A. Stretching, Yawning, Whispering; B. Think of Feet, Hands, Knees, Head, Eyes; C. Think of Chest, Fingers, Toes, Jaw, Lips, Tongue (each for ten counts); D. Think of Correct Standing and Sitting Positions.<sup>2</sup>

The speech clinic in the University of Pennsylvania

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1. Scripture, Mrs. E. W., "The Practical Clinical Re-education of Speech Disturbances", The Journal of Expression, V(June, 1931), p. 65.
  2. Ibid., p. 81.



has been under the direction of Professor E. B. Twitmyer since 1907. During this summer of 1932, this clinic will offer to students the opportunity of observing examination of cases by Professor Twitmyer. The examinations will be conducted on the three of the five morning sessions each week. The other two mornings will be given to a presentation and survey of the older methods of correction and discussion of the newer schools with a thorough exposition of the psycho-physiological technique employed at the University of Pennsylvania clinic.

Dr. Smiley Blanton, well known in the field of speech correction, announces a private summer school for this summer at Williamstown, Massachusetts, for teachers and parents interested in child guidance, parental education, and speech correction. The speech clinic in this school will offer practice in the diagnosis of the various speech disorders. There will be study and practice in the various methods of treatment by means of physical re-education, training rhythmic coordinations, speech training, and emotional re-education.

There are, of course, several college and private speech clinics in the United States--these four were chosen for description for no other reason than to give an idea of what clinics in general are accomplishing.

#### V. Conclusion.

More and more are educators recognizing that good speech is a social and economic asset. Yet in the United States there are more than a million persons suffering from some form of speech defect. These disorders are causing many kinds of emotional disturbances and complexes and are resulting in hundreds of social and economic maladjustments.





Disorders of speech can be divided into four classes: speechlessness, mispronunciations, hesitant speech, and voice inadequacies. Stuttering, which is a form of hesitant speech, is the most serious of all speech disorders. The underlying cause may be neurotic, psychoneurotic, or lack of coordination in some part of the elaborate mechanisms of speech.

Speech specialists are devoting an increasing amount of time to the diagnosis and treatment of stuttering. The different forms of treatment may be named as medical, sensory imagery, cerebral dominance, psychotherapy or mental hygiene, and re-educational.

Public schools are finding places in their curricula for the special training of children with speech handicaps. Colleges and universities are offering specialized courses and clinical practice in their schools of speech for the training of teachers who are to take the responsibility of the re-education of speech defectives.

What an important field for work and research is the field of speech re-education! A million or more people in the United States with "speech defects of some kind are far too many, with our present educational system." Training in the re-education of speech is training in mental and physical hygiene, relaxation, good posture, muscular development and coordination, poise, self-control, mental balance, and straight thinking. Speech re-education is character building.

George Bernard Shaw makes Henry Higgins the teacher of phonetics in *Pygmalion* say, "You have no idea how frightfully interesting it is to take a human being and change her into a quite



different human being by creating a new speech for her. It's filling up the deepest gulf that separates class from class, and soul from soul."





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